OPINIONS AND DECLARATIONS RENDERED BY THE INTER-NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E. Secretary to the Commission

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OPINION 261

Rejection for nomenclatorial purposes of the Index to the Zoophylacium Gronovianum of Gronovius prepared by Meuschen (F.C.) and published in 1781

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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OPINION 261

REJECTION FOR NOMENCLATORIAL PURPOSES OF THE INDEX TO THE "ZOOPHYLACIUM GRO-NOVIANUM" OF GRONOVIUS PREPARED BY MEUSCHEN (F.C.) AND PUBLISHED IN 1781

RULING:—(1) In the Index, published in 1781, to Gronovius, 1763—1781, Zoophylacium Gronovianum of Gronovius, Meuschen (F.C.) did not consistently apply the principles of binominal nomenclature, as required by Proviso (b) to Article 25, and this Index is therefore to be rejected for nomenclatorial purposes as well as the main text of the Zoophylacium itself.

(2) The following works or parts of works are hereby placed on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* as Works Nos. 11 and 12 respectively: (a) Gronovius 1763—1781, *Zoophylacium Gronovianum*; (b) the Index to Gronovius, 1763—1781, *Zoophylacium Gronovianum* prepared by Meuschen and published in 1781.

I.—THE STATEMENT OF THE CASE

On 28th July 1937, Mr. Francis Hemming, Secretary to the International Commission, prepared a paper drawing attention to the ambiguity in the wording of the Commission's *Opinion* 89, as to the extent to which the Plenary Powers were then used to suppress the *Zoophylacium Gronovianum* for nomenclatorial purposes, and raising the question of the availability of names published in the Index to the *Zoophylacium* prepared by Meuschen (F.C.) and published in 1781. Mr. Hemming did not at that time submit his paper to the Commission as an application for a decision, taking the view that it would be premature to do so, having regard to the fact that the question involved could not be settled until after a decision had been reached by the next

International Congress of Zoology on the question whether names published by authors who did not apply the principles of binominal nomenclature but who did recognise that the name of a species must be so constructed as to recognise the twofold concept represented (i) by the species itself and (ii) by the next higher category (i.e. the genus) were acceptable under Proviso (b) to Article 25. At that time the International Commission was under instructions from the last previous Congress—the Twelfth International Congress of Zoology, Lisbon, 1935—to prepare a considered report on the availability of names published by so-called "binary" but non-binominal authors (Lisbon Session, 5th Meeting, Conclusion 3) (1943, Bull. zool. Nomencl. 1:45). In 1948 a question arose in connection with another case—that of the specific name of the Sand Crab—the answer to be given to which depended, in part, on the availability of names published in Meuschen's Index to Gronovius' Zoophylacium Gronovianum. As it was desired to obtain a decision on this latter question from the International Commission at the Session which was then shortly to be held in Paris, Mr. Hemming decided to include the question of the availability of Meuschen's Index to the Zoophylacium in the Agenda to be presented to the Commission at that Session, and for this purpose submitted, as the application in this case, the paper which he had prepared in July 1937. That paper, to which the Registered Number Z.N.(S.) 311 had been given, was as follows :--

Meuschen's Index to the "Zoophylacium Gronovianum" of Gronovius published in the period 1763—1781

By FRANCIS HEMMING

(Secretary to the International Commission on Zoological Nomenclature)

In the course of my study of the old literature for the purpose of compiling the completest possible Catalogue of the butterflies of the Holarctic Region, I have recently had occasion to study carefully the Zoophylacium Gronovianum of Gronovius published in the period 1763—1781. This book and its index—the latter compiled by F. C. Meuschen—are of importance, for there are new names in the latter, which have been completely neglected. In consequence, the acceptance of these names would lead to most undesirable and quite pointless

Figure on opposite page

The figure given on the opposite page is a fascimile reproduction on a reduced scale of a page of the Index to the *Zoophylacium gronovianum* of Gronovius prepared by Meuschen (F.C.) and published in 1781.

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name-changing, which it would be desirable to prevent by asking the International Commission to intervene with its Plenary Powers.

- 2. The Zoophylacium Gronovianum has twice been considered by the International Commission, but in spite of this—and, to some extent, because of this—the status of this work is by no means clear. The first occasion on which the Commission considered this book was on an application submitted in the period 1907-1910 by Dr. David Starr Jordan. The Commission's decision on this application was embodied in its Opinion 20, published in 1910 (Smithson, Publ. 1938: 48—50). This was the famous *Opinion* in which the Commission propounded, and gave official recognition to, the view that two classes of author are to be recognised as having published available works for the purposes of Proviso (b) to Article 25, namely (i) binominal authors; (ii) authors, who, though not binominal, nevertheless recognised that the name of a species should be so constructed as to give clear recognition of the principle that such a name should express two concepts, namely that of the species itself and that of the next higher grouping (i.e. the genus). This latter class was made up of the so-called "binary" authors. Under this decision it followed that the generic names in the Zoophylacium were available names. It did not follow—but it has sometimes been claimed—that, where Gronovius applied to any given species a name which happened to consist of a binominal combination, the specific trivial name so used as well as the generic name was also available for nomenclatorial purposes.
- 3. The second occasion on which the Commission considered the Zoophylacium was on a further application by Dr. David Starr Jordan, who, appalled by what he called the "stumbling blocks" represented by the so-called "binary" but non-binominal authors, now sought to cut the knot, so far as the literature of ichthyology was concerned, by appealing to the International Commission to use its Plenary Powers to suppress the works in question. One of the works included in this application was the Zoophylacium of Gronovius. In Dr. Jordan's application this work was incorrectly cited as "Gronow, 1763, Museum Ichthyologicum, 1763", but this was later corrected (apparently by Dr. Stiles, as Secretary to the Commission) by the substitution of the word "Zoophylacium" for the word "Ichthyologicum". So far as the foregoing work was concerned, Dr. Jordan's request was granted by the Commission in its Opinion 89, published in 1925 (Smithson. misc. Coll. 73 (No. 3): 27—33), under which the Zoophylacium was suppressed for nomenclatorial purposes by the use of the Plenary Powers.
- **4.** The question which has next to be considered is the scope of the decision taken by the Commission in regard to the *Zoophylacium* in the foregoing *Opinion*. Did that decision cover only the portion of the above work published in 1763 (the date cited in Dr. Jordan's application)? Or did it cover the whole work? If so, did it cover also

the index to the Zoophylacium prepared after the death of Gronovius by F. C. Meuschen? The whole of the Zoophylacium prepared by Gronovius himself is on the same plan, and it would be difficult to make out an argument in favour of the view that the decision by the Commission covered only the first of the volumes of this work, though it is no doubt true that, in submitting his application, Dr. Jordan, as an ichthyologist, was interested personally only in securing the suppression of the portion relating to the Class Pisces. The ambiguity on this point in the wording of the Commission's Opinion 89 is an unfortunate defect and one which at some convenient time the Commission should be asked to remedy.

- 5. In view of the fact that, as explained above, the lack of clarity in the decision given in *Opinion* 89 leaves it open to argument whether in that *Opinion* the whole, or only the 1763 portion, of the *Zoophylacium* was then suppressed under the Commission's Plenary Powers means also that it is a matter of doubt whether the Index to the Zoophylacium prepared by Meuschen was covered by that decision. This is the more arguable, having regard to the fact that at first sight Meuschen's Index appears to have been prepared on a plan differing from that adopted by Gronovius in the main text, and one more closely resembling the binominal method. A careful inspection of Meuschen's index shows, however, that this appearance is deceptive and that, in fact he used, in compiling this Index, a system of nomenclature which was indistinguishable from that used by Gronovius and many other authors of that period, that is, that he used a system of nomenclature which was not binominal, though it was of the so-called "binary" type. This is brought out particularly clearly in that part of the Index which bears the title *Index* Zoophytorum, where species are listed under such non-binominal names as the following: - Corallina Angelica erecta; Corallina caule angulato rigido.
- 6. It is not possible at the present time to form any definite conclusion on the availability either (a) of such portion, if any, of the main text of the Zoophylacium which may remain unsuppressed under the decision given in Opinion 89, or (b) of Meuschen's Index to that work, since this must depend upon the decision to be taken by the next International Congress of Zoology on the question of the acceptability or otherwise, under Proviso (b) to Article 25, of names published by authors who used the so-called "binary" but non-binominal type of nomenclature, as to which the International Commission were instructed at Lisbon in 1935 to prepare a special report. If the

The Report on the question of the meaning of the expression "nomenclature binaire" as used in Proviso (b) to Article 25 (1950, Bull. zool. Nomencl. 5:152—167) submitted by the Commission in July 1948 was approved by the Thirteenth International Congress of Zoology, Paris, 1948. The decision so taken completely removed all the former doubts regarding the meaning to be attached to the foregoing expression and led to the decision by the Paris Congress to substitute for that ambiguous expression the perfectly clear expression "nomenclature binominale" (1950, Bull. zool. Nomencl. 4:63—66.)

next Congress decides against the acceptance of these "binary" authors, then the whole of the text of the Zoophylacium, together with Meuschen's Index to that work, will be automatically rejected. If, however, the Congress were to decide to uphold the availability of names published by "binary" but non-binominal authors—a contingency which I regard as unlikely in view of the extreme hostility to such a decision displayed in 1930 by the majority of the members of the Section on Nomenclature at the Eleventh (Padua) Congress of Zoology—it will be necessary to consider the submission to the Commission of an application both (i) for a declaration that the decision in Opinion 89 is to be read as meaning that the whole of the Zoophylacium was then suppressed (or, alternatively, if that was not the intention of that Opinion, to apply for the use of the Plenary Powers to suppress the portion not suppressed under that Opinion), and also (ii) for the suppression of Meuschen's Index.

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. In the period 1944—1945, Mr. Hemming, as Secretary to the International Commission, carried out a detailed examination of the Commission's Opinion 13 (1910, Smithson. Publ. 1938: 22-24), an annotated re-issue of which was then in preparation. In the course of this examination, Mr. Hemming took the view that the assumption adopted in the foregoing Opinion that the name Cancer quadratus Fabricius, 1793, was invalid as a junior homonym was extremely questionable. The applicant in the case dealt with in *Opinion* 13 did not cite any reference in support of the foregoing contention, but an examination of the available literature suggested to Mr. Hemming that the earlier name which the applicant must have had in mind was Cancer quadrata Meuschen, 1778, Mus. gronov. : 84, which ante-dated by nine years the first publication of the name Cancer quadratus Fabricius, which, contrary to the statement in Opinion 13, occurred not in 1793 (Ent. syst.) but in 1787 (Mantissa 1:315). There followed an examination by Mr. Hemming of Meuschen's Museum Gronovianum, which led to the conclusion that that work had not been duly published within the meaning of Article 25 and further that in it Meuschen had applied a system of nomenclature which was not only not binominal but was not even consistently "binary" in the sense in which that expression was used at that time. Mr. Hemming accordingly decided to ask the International Commission, inter alia, to render an Opinion rejecting Meuschen's Museum Gronovianum for nomenclatorial purposes. At the same time he concluded that for the reasons explained above, the oldest available name for the Sand Crab was Cancer quadratus Fabricius, 1787. This conclusion, together with the recommendation regarding Meuschen's Museum Gronovianum, was embodied in Notes annexed by Mr. Hemming to the re-issue of Opinion 13. That re-issue was sent to the printer in May 1945, but, owing to difficulties arising from paper rationing, shortage of labour at the printing works and similar causes, publication did not actually take place until 28th February 1947 (Ops. Decls, int. Comm. zool. Nomencl. 1: 207—234).

3. View expressed by Dr. Fenner A. Chace, Jr. (United States National Museum, Washington, D.C., U.S.A.): On 27th February 1948, Dr. Fenner A. Chace, Jr. (Curator, Division of Marine Invertebrates, United States National Museum, Washington, D.C., U.S.A.) wrote the following letter, in which he suggested that consideration should be given to the status of the name Cancer quadratus Meuschen, 1781, as published in the Index to the Zoophylacium gronovianum of Gronovius, a name which, if found to be available, would have priority over Cancer quadratus Fabricius, 1787:—

It has recently come to my attention that certain workers in the United States are following the recommendations outlined in your revised version of *Opinion 13 (Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature*, vol. 1, pt. 22, February 28 1947, pp. 207—234).

With the assistance of Dr. L. B. Holthuis of the Leiden Museum who is visiting us at present, I have gone over this question in some detail. As you state, there is no indication in the original version of this *Opinion* where *Cancer quadratus* was used prior to Fabricius' use of the name in 1787. You apparently base your argument for the validation of *Ocypode quadrata* on the assumption that this name appeared prior to 1787 only in Meuschen's *Museum Gronovianum* of 1778. I am in complete agreement with you that this publication has no nomenclatural standing. You will notice, however, that Miss Rathbun in her monograph on the Grapsoid Crabs of America (*Bulletin 97*, *U.S. National Museum*, 1918, p. 367) mentions *C.*

quadratus Meuschen, 1781, as the earliest post-Linnaean valid use of this name.

I have been unable to find the original correspondence relating to this case, but I feel reasonably certain that Miss Rathbun refers to Meuschen's index to Gronovius' Zoophylacium Gronovianum. Although this work as a whole, which appeared in 1763, cannot be considered binominal, Meuschen's index, which came out in 1781, is based on Linnean principles according to the preface (cf. W. H. Dall, 1923, "F. C. Meuschen in the Zoophylacium Gronovianum. Explanatory Note", Nautilus, vol. 37, pp. 44—52). This index is apparently a rare publication, but I have been able to examine a microfilm copy of it and find that the name quadratus is there employed. If we accept Dall's conclusion that Meuschen's index is acceptable nomenclaturally, this must be considered a valid use of the name quadratus, and it follows that Fabricius' Cancer quadratus of 1787 is preoccupied.

It has not been possible for me to cover this question as thoroughly as should be done because of the lack of some of these rare publications, but I thought that you should be advised about the use of the name in this publication before your amended opinion is finally acted upon by the Commission.

I would appreciate it if you would let me know what further action is contemplated.

4. Statement furnished by Mr. N. D. Riley (British Museum (Natural History)), London: On receipt of Dr. Fenner Chace's letter of 27th February 1948, Mr. Hemming invited Mr. N. D. Riley (Keeper, Department of Entomology, British Museum (Natural History), London), with whom he had discussed the problem of Gronovius' Zoophylacium Gronovianum before the war, to re-examine that work and Meuschen's Index to it, and to furnish a report for the consideration of the Commission. Mr. Riley kindly consented to undertake this investigation, and on 15th July 1948 he furnished the following Report:—

Note on the Nomenclature used by Gronovius in "Zoophylacium Gronovianum", in 1763—1781

By N. D. RILEY (British Museum (Natural History), London)

The Text is completely consistent throughout. Genera are set out and given single names (e.g. Papilio, Patella, Murex, etc.) and defined either by reference to a previous description, or by the author's own description.

Species are consistently defined by the pre-Linnean system, that is, by a descriptive phrase or diagnosis (e.g. Serpula tests irregulariter contorta, striata, intus concamerata).

References are consistently given to the work of previous authors.

The author is consistently binary in taxonomic concept. If the uninominal generic names on the one hand, and the descriptive specific phrases on the other, be taken as two terms of a single nomenclatorial concept, then the author is also binary in respect of his nomenclature. Nowhere in the text does the author use a binominal specific name; such names do occur, but only as cited synonyms.

The *Index* (1781) contains alphabetically (i) the generic names given in the text (ii) other names which, on analysis, prove to be for the most part the trivial names given by Linné (*Syst. Nat.* Eds. 10 and 12) and some other authors to the species (referred to by number) in the text. The great majority of the latter names occur only in the *Index* and not at all in the *Text*, or, if they are in the text they appear there only as synonyms and are italicised in the *Index* to indicate that fact. However, there also occur other trivial names which clearly are introduced by Gronovius himself and are new as of that date (1781), e.g. *Abrotonites* and *Thamiras* in Lepidoptera. The application of these names is not open to doubt either as to genus or species as they refer to the numbered descriptions in the text. Nowhere, however, are these generic and trivial names directly associated as binominals.

Also in the *Index*, but especially in the section headed Zoophyta, there occur many apparent binominals. These are with very few exceptions (which appear to be misprints) printed in italics thus indicating that the author regarded them as synonyms. On analysis these names prove to be (i) real binominals of other authors, quoted as synonyms (ii) two words taken out of the descriptive definitions used by Gronovius (and other quoted authors) to define the species (iii) combinations which may be new or traceable to some source not at the moment identifiable. Very frequently the name which in these apparent binominals would seem to be generic in character, appears nowhere else in *Text* or *Index* as a generic name, but only as some part of a descriptive diagnosis.

It is abundantly clear that the apparent binominals found in the *Index* to Gronovius are not true binominals, but only incidental to the compiler's system of indexing.

5. At the same time Mr. Riley supplied photostat copies of a number of pages from Meuschen's Index to the Zoophylacium. One of these—the page relating to the names of zoophytes, to

which Mr. Hemming had referred in paragraph 5 of his paper of 28th July 1937—is annexed to the present *Opinion* in facsimile in order to illustrate the type of nomenclature used by Meuschen in this Index.

6. On receipt of Mr. Riley's Report and the accompanying photostat copies of pages of Meuschen's Index to the *Zoo-phylacium*, Mr. Hemming placed the following note on the File (Z.N.(S.) 311) relating to this case:—

Meuschen's Index to the "Zoophylacium Gronovianum" of Gronovius, 1763-1781

By FRANCIS HEMMING

(Secretary to the International Commission on Zoological Nomenclature)

It is clearly desirable that the opportunity presented by the forth-coming Session of the International Commission should be taken to obtain decisions on the various questions raised in the Notes annexed to the re-issues of the older *Opinions* so far published. If the Commission is to take the decisions necessary to correct the erroneous portions of *Opinion* 13 ("The Specific Name of the Sand Crab") and to clarify those parts which are at present obscure, it will be necessary, in view of Dr. Fenner A. Chace's letter of 27th February 1948, to obtain, first, a decision on the question of the availability of names published in Meuschen's Index to the *Zoophylacium Gronovianum*, a preliminary which I had not realised would be necessary when in 1944—1945 I studied the issues raised in *Opinion* 13.

- 2. In the circumstances I propose to treat my note of 28th July 1936 as constituting the "statement of the case" and to bring forward with it Mr. Riley's report of 15th July 1948 and the photostat copies of pages of Meuschen's Index furnished by Mr. Riley at the same time.
- 3. The proposal that I intend to put to the Commission is that it should reject as not available for nomenclatorial purposes Meuschen's Index to the Zoophylacium, provided that by the time that the Commission reaches this item on its Agenda, it has already approved and adopted the recommendation that I am submitting in Paper I.C.(48)2 that it should advise the Paris Congress that the expression "nomenclature binaire", as used in the Règles, has the same meaning as the expression "nomenclature binominale" and should recommend

the Congress to put an end to argument on this subject by substituting the latter expression for the expression "nomenclature binaire", wherever the latter expression appears in the *Règles* (i.e. in Articles 25 and 26).

4. The adoption of a decision in the foregoing sense in regard to the status of names in the *Index* to the *Zoophylacium* prepared by Meuschen will serve the further useful purpose of making it clear that the whole of the text of the Zoophylacium so indexed by Meuschen is unavailable for nomenclatorial purposes, since as the Commission made clear in its Opinion 20 in 1910 Gronovius did not apply the principles of binominal nomenclature in that work. Thus, a decision in the sense suggested would clear the air completely by rejecting in toto both the Zoophylacium of Gronovius published in the period 1763—1781, and also the Index of that work prepared by Meuschen and published in 1781. (It will be noted that, if the Paris Congress takes the line recommended as regards the interpretation of the expression "nomenclature binaire", one of the effects of its decision will be to render unnecessary the action taken by the Commission under the Plenary Powers in *Opinion* 89, for all the works there suppressed are non-binominal works which would automatically be invalid under the interpretation of the foregoing expression referred to above. such circumstances, it would be a waste of time to investigate the extent to which the Plenary Powers were used to suppress Gronovius' Zoophylacium, since that would be a matter of historical interest only, without any practical significance).

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

7. The question of the interpretation of Proviso (b) to Article 25 was the first of the problems connected with the wording of the *Règles* to be considered by the International Commission on Zoological Nomenclature at its Paris Session in 1948. The Commission, after examining the draft Report submitted to it by the Secretary, decided to approve and adopt the recommendations so laid before it. The Commission accordingly agreed (1) to report to the Paris Congress that, in its opinion, the expression "nomenclature binaire" as used in the foregoing Proviso had the same meaning as the expression "nomenclature binominale",

and (2) to recommend the substitution of the latter expression for the equivocal expression "nomenclature binaire" (Paris Session, 4th Meeting, Conclusion 3) (1950, Bull. zool. Nomencl. 4:63—66). It was in the light of the decision so taken that the International Commission considered the question of the availability for nomenclatorial purposes of the Index to the work by Gronovius published in the period 1763—1781 under the title Zoophylacium Gronovianum prepared by Meuschen and published in 1781, at the Fourteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 2030 hours. The following is an extract from the Official Record of the Proceedings of the International Commission, setting out the decision reached by it in this case at the foregoing meeting (Paris Session, 14th Meeting, Conclusion 29) (1950, Bull. zool. Nomencl. 4:502—504):—

THE COMMISSION agreed :-

- (1) that in his Index to Gronovius, 1763—1781, Zoophylacium Gronovianum, Meuschen (F.C.) had not consistently applied the principles of binominal nomenclature, as required by Proviso (b) to Article 25;
- (2) that, in view of (1) above, no new name published in the foregoing Index prepared by Meuschen possessed any availability under the *Règles* in virtue of having been so published;
- (3) to render an *Opinion* recording the decisions specified in (1) and (2) above.

8. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth

International Congress of Zoology, Paris, 1948, at its Sixth Meeting held on Monday, 26th July 1948 (1950, Bull. zool. Nomencl. 5:116).

9. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely:—

Beltrán vice Cabrera; Boschma; Bradley; di Caporiacco; Hemming; Hindle vice Jordan; Jorge vice do Amaral; Kirby vice Stoll; Lemche vice Dymond; Mansour vice Hankó; Metcalf vice Peters; Riley vice Calman; Rode; Spärck vice Mortensen; van Straelen vice Richter; Usinger vice Vokes.

- 10. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.
- 11. At its meeting held at Copenhagen in August 1953, the Fourteenth International Congress of Zoology decided to insert a provision in the Règles establishing an "Official Index" to be styled the Official Index of Rejected and Invalid Works in Zoological Nomenclature and directing the insertion therein of the title of any work which the International Commission might either reject under its Plenary Powers or declare to be invalid for the purposes of zoological nomenclature (1953, Copenhagen Decisions zool. Nomencl.: 23—24). Since the foregoing decision applies to past, as well as to future, decisions by the International Commission in cases of this kind, the opportunity presented by the preparation of the present Opinion has been taken to record the insertion in the foregoing Official Index of the title of Gronovius' Zoophylacium Gronovianum, 1763—1781, and of the Index to that work prepared by Meuschen and published in 1781.
- 12. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present Opinion is accordingly hereby rendered in the name of the said International Commission

by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

13. The present *Opinion* shall be known as *Opinion* Two Hundred and Sixty-One (261) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Third day of December, Nineteen Hundred and Fifty-Three.

Secretary to the International Commission on Zoological Nomenclature

FRANCIS HEMMING